

GENERAL INDEX TO VOLUME XXV

New scientific names of plants and the final members of new combinations are printed in bold face type; synonyms and page numbers having reference to figures and plates, in *italics*; and previously published names and all other matter, in ordinary type.

A

Abacina, 550
Acarosporaceae, 554
 Acid reaction of pollen granules of *Tradescantia*, 460
Actinodaphne, 400; *angustifolia*, 418; *chinensis*, 386, 414, var. *oblongifolia*, 386, 414, var. *rotundifolia*, 385, 414; *cochininchinensis*, 404; *confertiflora*, 400, 401; *confertifolia*, 414, 418; *cupularis*, 399, 405; *ferruginea*, 407; *glauca*, 410; *Henryi*, 407; *hong-kongensis*, 414, 418; *Hookeri*, 414; *lanceifolia*, 406, var. *sinensis*, 406; *Lecomtei*, 399, 413; *litseaefolia*, 408; *magnifica*, 403; *obovata*, 399, 404; *omeiensis*, 411; *pedunculata*, 414; *perilucida*, 409; *pilosa*, 404; *reticulata*, 412, var. *Forrestii*, 412, var. *glabra*, 412; *reticulata*, 413, var. *omeiensis*, 411; *rotundifolia*, 385, 414; *sesquipedalis*, 409, var. *camboiana*, 409; *setchuenensis*, 411; *trichocarpa*, 402; *Tsaii*, 408
 Additions, corrections, and revisions to the "Annotated Catalogue of the Flowering Plants of Missouri," 775
Adinandra lasiopetala, 355
Agalopisma, 622
Alectoria, 598; *antarctica*, 599, 600
 Algae in Marie Byrd Land, 467, 495, 520
 Algal components of lichens, 520, 735; of *Stereocaulon*, 739, 741, 743, 750
 Alkali reaction of microspore granules of *Tradescantia*, 460
 Allen, Caroline K. Studies in the Lauraceae. I. Chinese and Indo-Chinese species of *Litsea*, *Neolitsea*, and *Actinodaphne*, 361
Alonsoa, 438; *acutifolia*, 453; *cauliflora*, 453; *incisifolia*, 453; *linearifolia*, 453; *linearis*, 453; *Mutisii*, 453; *procumbens*, 453
Alsine chamaedrios, 446
Alsines seu Spergulae dictae species africana, 444
Amaryllidaceae, Panamanian, 824

ANN. MO. BOT. GARD., VOL. 25, 1938.

Amelanchier canadensis f. *nuda*, 772
Amphiloma, 622
Anagallis capensis, 446, 452; *foliis sinuatis*, 437; *purpurea*, 446
Anisophyllum (sect.) 2, 10
Anisophyllum, 2, 10; *cordatum*, 62; *multiforme*, 45; *nodosum*, 10; *Thymifolium*, 67; *virgatum*, 59
 Antarctic Expedition, The second Byrd
 —Botany, 467
 Antarctica, botanical exploration of, 516, 517
Antirrhinum, 435
Anisia sect. *Pannoparmelia*, 586
Apocynaceae: Panamanian, 832; Studies in the. VII. An evaluation of the genera *Plumeria* L. and *Himatanthus* Willd., 189
 Apothecial characters of *Stereocaulon*, correlation of, with cephalodial types, 746
Ardisia furfuracea, 832
Argopsis, 734, 736
Asclepiadaceae, Panamanian, 833
Aspidosperma, 194
Audibertia (sect.), 98
Audibertia, 98; *capitata*, 123; *Clevelandii*, 119; *decurrens*, 110; *Dorrii*, 133; *grandiflora*, 110; *humilis*, 136; *incana*, 130, var. *pachystachya*, 125, var. *pilosa*, 133; *Mearnsii*, 131; *nivea*, 121; *pachystachya*, 125; *Palmeri*, 146; *polystachya*, 140; *spinulosa*, 113; *stachyoides*, 112, var. *revoluta*, 117; *Vaseyi*, 138
Audibertiella, 98; *argentea*, 131; *capitata*, 123; *Clevelandii*, 119; *Dorrii*, 133; *grandiflora*, 110; *humilis*, 136; *incana*, 130; *nivea*, 121; *Palmeri*, 146; *polystachya*, 140; *stachyoides*, 113; *Vaseyi*, 138

B

Baeomyces, 734
 Baker, Gladys E., Carroll W. Dodge and. The second Byrd Antarctic Expedition—Botany. II. Lichens and lichen parasites, 515

Barbula Byrdii, 719, 720
Bartram, Edwin B. The second Byrd Antarctic Expedition—Botany. III. Mosses, 719
Begonia Alleni, 830
Begoniaceae, Panamanian, determined by P. C. Standley, 830
Benoin fruticosum, 399; *Levinei*, 423; *obovatum*, 387; *puberulum*, 370; *setchuenensis*, 411
Berengeria, 655
Biatorella arachnoidea, 555, 680
Biatoridium, 554
 Birds, relation of, to Antarctic plant life, 485, 501, 502, 504
Blastenia, 611; *grisea*, 613, 680, 694; subg. *Protoblastenia*, 605; *succinea*, 612, 694
Blasteniaceae, 604
Botrytis, 522, 712
Bryaceae, 723
Bryum (Argyrobryum) antarcticum, 719, 724; *austropolare*, 724; *Siplei*, 723
Buchenavia capitata, 831
Buellia, 631; *albida*, 654, 708; *albordiana*, 647, 700, 708; *brunnescens*, 646, 700; sect. *Catocarpus*, 551; *chrysaea*, 642, 700; *dendritica*, 651, 706, 708; *flavoplana*, 640, 698, 718; *fioccosa*, 650, 702, 704; *frigida*, 653, 702, 718; *grisea*, 639, 706; *muscicola*, 643, 706; *olivaceobrunnea*, 636, 704; *pallida*, 638, 700; *Russellii*, 649, 708; *Siplei*, 635, 708, 710; *stellata*, 644, 698, 700
Buelliaaceae, 521, 631
Burmanniaceae, Panamanian, determined by F. P. Jonker, 825
 Byrd Antarctic Expedition, The second—Botany. I. Ecology and geographical distribution, 487; II. Lichens and lichen parasites, 515; III. Mosses, 719

C

Cacalia arborea, 798; *pulchella*, 816; *teretifolia*, 819
Californian Salvias, The, 95
Callopisma, 619
Caloplaca, 619; *athallina*, 621; *aurantiaca*, 622; *cinericola*, 622; *cirrochrooides*, 626; *inordinata*, 626; *Joannae*, 626; *lucens*, 627; *sublobulata*, 627
Candelariella, 580; *albovirens*, 582, 684, 686; *chrysaea*, 580, 686
 Carbohydrates, tests for, in microspore granules of *Tradescantia*, 458
Cardamine bulbosa f. *fontinalis*, 771
Carya Buckleyi var. *arkansana* f. *glabra*, 770
 "Catalogue, Annotated, of the Flowering Plants of Missouri," Additions, corrections, and revisions to the, 775
Catillaria, 543; *arachnoidea*, 549, 678, 718; *crema*, 544, 672; *fioccosa*, 545, 672; *granulosa*, 547, 674; *inconspicua*, 548, 674
Catocarpus, 551
Catocarpus, 551
Cephalodia of *Stereocaulon*: historical review of, 729; illustrating their varied gross morphology, 764; origin and development of, 738, 766, 768; physiological significance of, 737; The taxonomic importance and phylogenetic significance of the, 729; types of, 737, 745, correlation of apothecial characters with, 746, of vegetative characters with, 748, of geographical distribution with, 758, botryose, 741, sericeulate, 742, spherical, 739
Chamaesyce, 2; *atrococca*, 42; *Celastroides*, 24; *Clusiæfolia*, 10; *Degeneri*, 62; *festiva*, 61; *Forbesii*, 12; *halemanui*, 23; *Hillebrandii*, 56, var. *waimanoana*, 58; *Hookeri*, 59; *Hypericifolia*, 66; *lorifolia*, 33; *multiformis*, 45; *olowaluana*, 40; *Remyi*, 15; *Rockii*, 14; *Skottsbergii*, 54
 Chemical studies, Optical and, on the granules in microspores of *Tradescantia*, 455, 458
 Chester Mts., geology and plant life of, 493, 514
 Chinese and Indo-Chinese species of *Litsea*, *Neolitsea*, and *Actinodaphne*, 361
Chiococca phaenostemon, 838
Chlorophyceae, 520, 751
Cladonia, 734, 745
Cladoniaceae, phylogenetic relationships in, 733, 735
 Claude Swanson Mts., 487, 506
Cleyera, 299, 300
Cogswellia, 225, 228; *alata*, 287; *altensis*, 288; *ambigua*, 247; *angustata*, 268; *anomala*, 285; *argensis*, 263; *artemisiarum*, 264; *Austinae*, 257; *bicolor*, 246; *Brandegeei*, 290; *brecciarum*, 287; *brevifolia*, 286; *Canbyi*, 244; *carusifolia*, 252, var. *patens*, 250, var. *Vaseyi*, 251; *Chandleri*, 250; *circumdata*, 249; *concinna*, 276; *Congdoni*, 266; *Cottami*, 277; *Cous*, 247; *Cusickii*, 287; *dasyarpa*, 262; *daucifolia*, 260; *decipiens*, 255;

Donnellii, 271; *duchesnensis*, 292; *Eastwoodae*, 275; *elliptica*, 265; *farfara*, 242; *flava*, 264; *foeniculacea*, 259; *fragrans*, 271; *Geyeri*, 243; *gigantea*, 285; *Gormani*, 240, f. *purea*, 241; *Grayi*, 270; *Hallii*, 279; *Hassei*, 236; *Hendersoni*, 244; *Howellii*, 237; *insularis*, 239; *Jaredi*, 262; *Jonesii*, 258; *juniperina*, 259; *laevigata*, 288; *lapidosa*, 293; *latifolia*, 291; *Leibergii*, 279; *Lemmoni*, 292; *leptocarpa*, 246; *leptophylla*, 283; *lucida*, 236; *MacDougalii*, 258; *macrocarpa*, 264, 279, var. *artemisiarum*, 264; *marginata*, 253; *Martindalei*, 280, var. *angustata*, 268; *microcarpa*, 279; *millefolia*, 270, var. *depauperata*, 270; *minima*, 273; *mohavensis*, 263; *montana*, 248; *nevadensis*, 254, var. *cupulata*, 254, var. *Parishii*, 255, var. *pseudorientalis*, 255; *nudicaulis*, 291; *Nuttallii*, 278, var. *alpina*, 279; *oregana*, 273; *orientalis*, 261; *ogenioides*, 242; *pallida*, 239; *Parishii*, 255; *Parryi*, 277; *parvifolia*, 238; *Piperi*, 241; *platycarpa*, 283; *platyphylla*, 291; *Plummerae*, 256; *rigida*, 240; *robustior*, 286; *Sandbergii*, 266; *scabra*, 275; *serpentina*, 271; *simplex*, 283; *simulans*, 264; *Sonnei*, 257; *Suksdorffii*, 289; *tomentosa*, 263; *Torreyi*, 267; *triternata*, 284, var. *alata*, 287, f. *lancifolia*, 285, var. *robustior*, 286; *utriculata*, 250, var. *papillata*, 251; *vaginata*, 249; *Vaseyi*, 251; *villosa*, 259; *Watsoni*, 245

Collemiaceae, 520

Combretaceae, Panamanian, determined by P. C. Standley, 831

Coniocarpineae, 736

Conopholium americanum, 836; *mexicana*, 835, 836; *panamensis*, 835, 836

Contributions toward a flora of Panama. II. Miscellaneous collections during 1936-1938, 823

Corrections to the "Annotated Catalogue of the Flowering Plants of Missouri," 775

Cranichis muscosa, 825

Crinum darienensis, 824; *erubescens*, 825

Culcitium magellanicum, 809

Cyclocarpineae, 733

Cynocheches chlorochilon, 825

Cylindrophne longipes, 379

Cymopterus duchesnensis, 292; *longipes*, 292; *Newberryi*, 292

Cynomarathrum, 228; *alpinum*, 279; *Brandegei*, 290; *brecciarum*, 287; *Eastwoodae*, 275; *latilobum*, 281; *Macbridei*, 292; *megarrhizum*, 282; *Nuttallii*, 278; *Parryi*, 277; *scabrum*, 275

D

Daphnidium elongatum, 390; *lancifolium*, 406

Diascia, 436, 438, 446; *Bergiana*, 436, 437, 438; *diffusa*, 435, 436, 437, 453; *elongata*, 453; *macrophylla*, 437, 440, 453; *montana*, 446; *Scullyi*, 446; *uniflora*, 453

Diastase, effect of, on microspore granules of *Tradescantia*, 459

Dictyotrinis, 655

Didymodon glaciale, 719

Dimelaena, 655

Dioscorea cerasifolia, 326; *serrata*, 321

Diphysis, 550

Diphanis, 550

Diplonaevia Parmeliae, 661, 712

Dodge, Carroll W. and Gladys E. Baker. The Second Byrd Antarctic Expedition —Botany. II. Lichens and lichen parasites, 515

Douglasiana, 101

Dryopteris Hostmanni, 824; *Lindigii*, 824

Durham Point, plant life of, 496

E

Echinophace (subsect.), 100

Echinophace (sect.), 100

Echites turbinata, 833

Ecology and geographical distribution of the Antarctic flora, 467

Edsel Ford ranges of Marie Byrd Land, 468; chemical analyses of some of the igneous mountains in, 474; general view of, 504; temperature of, 480

Elaphoglossum siliquoides, 824

Enzyme reactions of pollen granules of *Tradescantia*, 459

Epling, Carl. The Californian Salvias. A review of *Salvia*, section *Audibertia*, 95

Eucarya (sect.), 299, 306

Eulophus ambiguus, 246; *triternatus*, 284

Euphorbia L., Revision of the Hawaiian species of, 1

Euphorbia, 5; *Arnottiana*, 59; *atrococca*, 42, var. *kilaueana*, 44, var. *kokeeana*, 44; *bifida*, 66; *Celastroides*, 24, var. *amplectens*, 36, 38, var. *halawana*, 31, 84, f. *kahanana*, 31, var. *hanapepensis*, 35, 36, var. *haupuana*, 29, var. *Humbertii*, 32, var. *kaenana*,

28, 82, var. *kealiana*, 30, var. *kohaliana*, 30, var. *lorifolia*, 33, var. *mauiensis*, 38, var. *momomiana*, 27, 80, var. *nematopoda*, 33, var. *niuensis*, 36, var. *saxicola*, 32, var. *Stokesii*, 26, var. *waikoluensis*, 29; *Celastroides*, 35; *Clusiaefolia*, 10; *Clusiaefolia* var. *grandifolia*, 13; *cordata*, 62; *coriariaefolia*, 59; *cyathophora*, 72; *Degeneri*, 62, var. *molokaiensis*, 64, 94; *festiva*, 61; *Forbesii*, 12; *geniculata*, 72; *halemanui*, 23, 78; *heterophylla*, 70, var. *cyathophora*, 72; *heterophylla* var. *genuina*, 70; *Hillebrandii*, 56, var. *palikeana*, 58, var. *waimanoana*, 58; *hirta*, 64; *Hookeri*, 59, var. *integrifolia*, 61; *Hypericifolia*, 66; *lorifolia*, 33, 36, 39, var. *gracilis*, 41; *multiformis*, 45, var. *haleakalana*, 49, var. *ksalana*, 52, var. *kapuleiensis*, 50, var. *manoana*, 50, var. *microphylla*, 47, var. *perdita*, 53, var. *sparsiflora*, 51, var. *tomentella*, 52, 90; *multiformis*, 47, 50, var. *a*, 47, var. *Celastroides*, 24, var. *lorifolia*, 33, var. *tenuior*, 47; *myrtifolia*, 59; *ohuensis*, 32; *olowaluana*, 40, var. *gracilis*, 41; *palustris*, 51; *Peplis*, 73; *pilulifera*, 64; *prostrata*, 68; *Remyi*, 15, var. *hanaleiensis*, 23, var. *kahiliiana* (*kalihiana*), 19, var. *kauaiensis*, 22, var. *leptopoda*, 18, var. *Lydgatei*, 18, var. *molesta*, 19, 76, var. *olokensis*, 20, var. *pteropoda*, 17, var. *wahisawana*, 19, var. *waimana*, 17, var. *Wilkesii*, 21; *Remyi*, 15, var. *a*, 15, var. *β*, 21; *rivularis*, 33; *Rockii*, 13; *Skottsbergii*, 54, var. *audens*, 55, var. *kalaeloa*, 55, 92, var. *Vaccinoides*, 56; *sparsiflora*, 51; *Stokesii*, 26; *Thymifolia*, 67

Eurhizocarpon, 551

Eurya subgen. *Euryodes* and *Penteurya*, 299

Eurya, 299, 306; *acuminata*, 321, var. *Groffii*, 325; *acuminata* var. *euprista*, 322, var. *monticola*, 323, var. *multiflora*, 322, 325; *acuminatissima*, 328; *albiflora*, 346; *albo-punctata*, 353; *amplexicaulis*, 338; *amplexifolia*, 306; *anceps*, 310; *angulosa*, 353; *angustifolia*, 321, 322; *arbutifolia*, 353; *arisanensis*, 323; *aurescens*, 309; *auriculata*, 338; *Benthamiana*, 353; *biifolia*, 321; *Blumeana*, 321; *boliviensis*, 354; *Bolleana*, 354; *boninensis*, 351; *buxifolia*, 338; *calophylla*, 354; *candicans*, 354; *eastaneifolia*, 351; *Cavalieri*, 354; *cerasifolia*, 326; *cer-*

nua, 354; *ceylanica*, 320; *chinensis*, 319; *chinensis*, 316; *ciliata*, 331; *clandestina*, 322, var. *minor*, 322; *coneocarpa*, 342; *confinis*, 322, var. *fusca*, 322; *conocarpa*, 354; *cordata*, 354; *coriacea*, 340; *crenatifolia*, 332; *crispa*, 335; *cuneata*, 317, var. *glabra*, 318; *disticha*, 327; *distichophylla*, 330, var. *Henryi*, 330; *Dombeyana*, 354; *Ekmanii*, 354; *emarginata*, 316, var. *microphylla*, 317; *Esquirolii*, 354, 389; *euprista*, 321, var. *heteroidea*, 322; *Fangii*, 318; *fasciculata*, 310; *ferruginea*, 354; *flava*, 338; *Friedrichsthaliana*, 354; *glaberrima*, 334; *glaberrima* var. *acuminata*, 323; *glabra*, 342; *glandulosa*, 315; *gnaphalocarpa*, 332; *grandis*, 351; *Greenmaniana*, 344; *Grisebachii*, 354; *Groffii*, 325; *guatemalensis*, 354; *guianensis*, 354; *Handelliana*, 309; *Hasseltii*, 310; *Hayatai*, 334; *Hellwigii*, 345; *Henryi*, 330; *Hintonii*, 354; *hirsutula*, 322; *hortensis*, 335; *inaequifolia*, 354; *inaequilatera*, 354; *Jacquemartii*, 336; *japonica*, 335, var. *microphylla*, 337; *japonica* var. *acuminata*, 322, var. *aurescens*, 314, var. *chinensis*, 320, var. *coneocarpa*, 343, var. *hortensis*, 335, var. *montana*, 335, var. *multiflora*, 336, var. *nitida*, 311, var. *parvifolia*, 319, var. *phyllanthoides*, 322, var. *pumila*, 337, var. *pusilla*, 335, var. *Thunbergii*, 311, 336, 343, var. *uniflora*, 335, var. *yakushimensis*, 353; *Karsteniana*, 354; *ladronica*, 311; *lanata*, 354; *lanceolata*, 354; *lasiocarpa*, 354; *latifolia*, 336; *Lehmannii*, 354; *leptantha*, 349; *leptophylla*, 332; *littoralis*, 316; *longipes*, 335; *Loquiana*, 326; *lucida*, 321; *Macartneyi*, 306, var. *hainanensis*, 307; *macrophylla*, 355; *Matsudai*, 323; *meizophylla*, 348; *membranacea*, 322; *Merrilliana*, 347; *mexicana*, 355; *microphylla*, 337; *monsonensis*, 355; *montana*, 335; *multiflora*, 321; *muricata*, 352; *myrtifolia*, 310, var. *anceps*, 311, var. *Hasseltii*, 311, var. *polymorpha*, 310, var. *virens*, 311; *myrtilloides*, 355; *Nimanimae*, 355; *nitida*, 310, var. *aurescens*, 314; *nitida*, 355, var. *strigillosa*, 323; *obliquifolia*, 315; *obovata*, 343, var. *sinaboengensis*, 344; *obovata* var. *elliptica*, 343; *oreogena*, 346; *oimensis*, 352; *oxysepalia*, 350; *pachyphylla*, 340; *pachyrrachis*, 340; *palauensis*, 311; *panamensis*, 829; *parvifolia*,

319; *patentipila*, 331; *phyllanthoides*, 322, var. *brevifolia*, 322; *phyllopoda*, 350; *Pickeringii*, 340; *polyneura*, 307; *ponapensis*, 311; *pumila*, 337; *pusilla*, 336; *rapensis*, 352; *Rehderiana*, 349; *rengechiensis*, 337; *reticulata*, 343, 355, var. *subintegritifolia*, 355; *Richii*, 341; *Roemerii*, 344; *roraimensis*, 355; *rostrata*, 322; *Roxburghii*, 310; *ryukyuensis*, 353; *salicifolia*, 322; *sanguinea*, 341; *Seemanniana*, 355; *sericea*, 355, var. *chrysophylla*, 355; *serrata*, 322, var. *firma*, 322, var. *membranacea*, 322; *spathulifolia*, 355; *stenophylla*, 308; *strigillosa*, 331; *suberosa*, 355; *subintegritifolia*, 355; *Suzukii*, 323; *Swinglei*, 330; *symplocina*, 326; *syphilitica*, 355; *systyla*, 311; *ternatana*, 353; *ternstroemoides*, 355; *tetragonoclada*, 308; *tigang*, 347; *titang* var. *meizophylla*, 348, var. *phyllopoda*, 350; *timorensis*, 353; *trichocarpa*, 328; *trichogyna*, 328; *tristyla*, 342; *uniflora*, 335; *vaccinoides*, 355; *velutina*, 329; *verrucosa*, 355; *virens*, 311, var. *elliptica*, 311; *vitiensis*, 341; *Wallachiana*, 322, 326; *Wawraii*, 355; *Weissiae*, 315; *Wightiana*, 310; *Wrayi*, 323; *yaeiyamensis*, 333; *yakushimensis*, 353; *Yungasiae*, 355; *zigzag*, 334; *Zollingeri*, 310

Euryodes (subgen.), 299, 300, 301, 306

Euryptera, 228; *Hassei*, 236; *Houellii*, 237; *insularis*, 239; *lucida*, 235; *palida*, 239; *parvifolia*, 238

F

Ferula caruifolia, 252; *farinosa*, 242; *foeniculacea*, 259; *macrocarpa*, 264; *nudicaulis*, 290; *Nuttallii*, 291; *parvifolia*, 238; *pubescens*, 256

Frangipani, 204

Frangipanier, 204

Freziera, 299, 300; *angulosa*, 353; *arbutifolia*, 353; *boliviensis*, 354; *Bolleana*, 354; *calophylla*, 354; *candicans*, 354; *cernua*, 354; *conocarpa*, 354; *cordata*, 354; *Dombeyana*, 354; *Ekmani*, 354; *ferruginea*, 354; *Friedrichsthaliana*, 354; *Grisebachii*, 354; *guatemalensis*, 354; *gianensis*, 354; *Hieronyma*, 355; *inaequifolia*, 354; *inaequilatera*, 354; *integrifolia*, 353; *Karsteniana*, 354; *lanata*, 354; *lancifolia*, 354; *Lehmannii*, 354; *longipes*, 355; *macrophylla*, 355; *mexicana*, 355; *monsonensis*, 355; *Nimanimae*,

355; *reticulata*, 355, var. *subintegritifolia*, 355; *roraimensis*, 355; *Seemanniana*, 355; *sericea*, 355, var. *chrysophylla*, 355; *spathulifolia*, 355; *suberosa*, 355; *subintegritifolia*, 355; *ternstroemoides*, 355; *vaccinoides*, 355; *verrucosa*, 355; *Wawraii*, 355; *Yungasiae*, 355

Fungal components of lichens, 521, 735

G

Gametophyte of *Tradescantia*, granules in, 455

Garland Hershey Ridge, plant life on, 486

Gasparrinia, 622; *cirrochrooides*, 626; *inordinata*, 626; *Joannae*, 626; *luncens*, 626; *Siplei*, 624, 696, 698, 718; *sublobulata*, 627

Geeria angustifolia, 321; *glabra*, 342; *obovata*, 343; *serrata*, 321; *serrata sericea*, 321

Geographical distribution of the Antarctic flora, 467

Geology of Marie Byrd Land, 472

Gloeocapsa, 741, 742, 751

Glossodium, 734

Gomphillus, 734

Gonidia, cephalodial, in *Stereocaulon*, specificity of, 750; variation of, 752

Gonalganum panamensis, 837; *rosea*, 836

Graham Land, explorations in, 468, 503, 515

Grant, Adele Lewis. A monograph of the genus *Hemimeris*, 435

Granules in microspores of *Tradescantia*, Optical and chemical studies on the, 455, 466

Graphidinae, 736

Greeneostachys (subsect.), 109

Greenan, Jesse More, portrait of, 1; dedication of number of *ANNALS* in honor of birthday of, 1; Studies of South American *Senecios*—II, 795

Grimmia Antartici, 719, 721, var. *percompacta*, 723, var. *plifera*, 722

Grimmiaceae, 721

Guettarda chiriquensis, 838; *crispiflora*, 839

Gymnoderma, 734

Gymnosiphon suaveolens, 825

Gynandra, 299

H

Haines Mountains, geology and plant life of, 486, 487, 506, 508

Hawaiian species of *Euphorbia* L., Revision of the, 1

Hemimeris, A monograph of the genus, 435

Hemimeris, 435, 441; *acutifolia*, 453; *olsinoides*, 446; *bonae-speci*, 435, 436, 452; *cauliflora*, 453; *centrodes*, 439, 440, 450; *coccinea*, 453; *diffusa*, 438, 453; *elegans*, 453; *gracilis*, 439, 440, 451, 452; *hirsuta*, 453; *incisifolia*, 453; *intermedia*, 453; *latipes*, 446; *linearifolia*, 453; *macrophylla*, 453; *montana*, 436, 437, 439, 446, 447, var. *pachyceras*, 440, 449; *montana* var. *latipes*, 446; *Mutisia*, 453; *nana*, 450; *pachyceras*, 449; *parviflora*, 453; *peduncularis*, 453; *procumbens*, 453; *sabulosa*, 436, 437, 439, 443, 444; *sessilifolia*, 446; *sinuata*, 446; *unilabata*, 453; *urticifolia*, 453

Heteromyces, 734

Hexanthus umbellatus, 396

Himatanthus Willd., An evaluation of the genera *Plumeria* L. and, 189

Himatanthus, 190, 192; *articulata*, 196, 221, 222, 223; *attenuata*, 197, 222; *bracteata*, 200, 222, 223; *lancifolia*, 200, 222; *obovata*, 201, 222, 223, 224, var. *puberula*, 201, 222, 223, var. *typica*, 201; *phagedaeonica*, 199, 221, 222, 223; *rigida*, 193, 196; *Succuba*, 198, 222, 223

Hormiscium sp., 496, 521, 712

Huea, 617; *cerussata*, 618; *coralligera*, 618; *flava*, 618, 696

Hybridization, evidences of, in the genus *Plumeria*, 217

Hybrids in *Salvia*, 143

I

Ilex crenata *luzonica*, 355; *emarginata*, 316

Imbricaria, 589

Ioxoste chinensis, 386, var. *rotundifolia*, 385; *lancifolia*, 406; *pedunculata*, 414; *rotundifolia*, 385, var. *oblongifolia*, 386

Ixora floribunda, 838

J

Jeppsonia (subsect.), 118

Johnson, George Thomas. The taxonomic importance and phylogenetic significance of the cephalodia of *Stereocalyx*, 729; Francis O. Schmitt and. Optical and chemical studies on the granules in microspores of *Tradescantia*, 455

Jonker, F. P., Panamanian Burmanniaceae determined by, 825

K

Killip, Ellsworth P., Panamanian Passifloraceae determined by, 830

King Edward VII Land and north-western Marie Byrd Land, map of, 475; lichens of, 500, 515; mosses of, 719

Kobuski, Clarence E. Studies in Theaceae. III. *Eurya* subgenera *Euryodes* and *Penteurya*, 299

Kuttlingeria, 614; *rufa*, 615, 694, 718; *rutilans*, 616, 694, 696

L

Lauraceae, Studies in the. I. Chinese and Indo-Chinese species of *Litsea*, *Neolitsea*, and *Actinodaphne*, 361

Laurus *Cubeba*, 368; *obovata*, 405; *pilosa*, 404; *rotundifolia*, 385

Lecanaria, 583

Lecanora, 568, 736; *carbonacea*, 576, 680; *chrysoleuca* var. *melanophthalma* f. *exsulans*, 570; *cinericola*, 622; *elegans* f. *lucens*, 626; *exsulans*, 570; *fuscobrunnea*, 577, 684; *griseomarginata*, 572, 682; *inordinata*, 626; *Joannae*, 626; *llacina*, 574, 682; *llacinofuscata*, 575, 684; *rufina* var. *melanophthalma* f. *exsulans*, 570; subg. *Rinodina*, 655; *Siplei*, 571, 682, 714; *sublobulata*, 627; *sublivacea*, 578, 684

Leibergia, 228; *orogenoides*, 242

Lecanoraceae, 567

Lecidea 528, 736; *Blackburni*, 540, 670; *Byrdii*, 536, 668; *cancriformis*, 539, 670, 714; *capsulata*, 533, 664; *cerussata*, 618; *coralligera*, 618; *Coreyi*, 534, 668; *ecorticata*, 537, 668; *Painei*, 542, 670; *Siplei*, 530, 666, 714; *Stansliiflora*, 538, 668, 670; *Wadei*, 532, 666

Lecideaceae, 527

Leptotaenia salmoniflora, 292

Lichen aurantiacus, 622; subg. *Physcia*, 660

Lichen Peak, geology and plant life of, 486, 487

Lichens, 515, 729; algal symbionts, 520, 735; bacterial symbionts, 522; cephalodia of, 729; cortex, 519; fungal symbionts, 521, 735; light relations, 477; lower cortex, 520; medulla, 519; reproduction of, 521; water relations, 485; wind relations, 483; and lichen parasites of the Second Byrd Antarctic Expedition, 467, 497, 515

Lindera communis, 399; *Esquirolii*, 369; *fruticosa*, 399; *megaphylla* f. *touyunensis*, 400; *ovata*, 367; *Playfairii*, 400, 431; *populifolia*, 367; *puberula*, 370; *setchunensis*, 411; *subcandata*, 431

Lipoids, tests for, in microspore granules of *Tradescantia*, 458

Litsea, 362; *acutivena*, 389; *amara*, 396; *aurata*, 398, 422; *auriculata*, 366; *Balanseae*, 386; *baviensis*, 376, var. *szemaois*, 377; *baviensis* var. *venulosa*, 378; *brevipetiolata*, 373, 374; *brideliiifolia*, 385; *cambodiana*, 383, var. *longiracemosa*, 383, var. *multiracemosa*, 383; *Cavaleriei*, 398; *Chaffanongi*, 398; *chartacea*, 377, var. *subtriplinervis*, 378; *Chenii*, 372; *chinenis*, 386; *Chunii*, 372; *citrata*, 368; *Clemensii*, 376; *confertifolia*, 399; 416; *consimilis*, 399, 426; *coreana*, 399; *Cubeba*, 368; *cupularis*, 399, 405; *Dunniana*, 391, 431; *Eberhardtii*, 378, var. *subtriplinervis*, 378; *elongata*, 390, var. *cuneifolia*, 391; *Esquirolii*, 389, 399; *eugeniooides*, 380; *euosma*, 368; *Faberi*, 390; *Faberi* var. *ganchouensis*, 389; *firma australannamensis*, 387; *Forrestii*, 369; *fruticosa*, 399; *Garrettii*, 388, var. *longistaminata*, 388; *glauca*, 399, 421; *glutinosa*, 384, var. *brideliiifolia*, 385; *gracilipes*, 399, 419; *grandifolia*, 375; *Greenmaniana*, 394; *Griffithii annamensis*, 375; *Helferi laosensis*, 379; *hexantha*, 396; *honghoensis*, 375; *hupehana*, 391; *hupehana* var. *longifolia*, 399, 413; *ichangensis*, 371; *iteodaphne*, 391, f. *chinenis*, 393; *Kobusiana*, 354, 389, 431; *lancifolia*, 395, var. *pedicellata*, 396; *lancifolia*, 406; *laneilimba*, 379; *laxiflora*, 399; *Liyuyingi*, 380; *longipes*, 379; *longipetiolata*, 367; *Macclurei*, 376; *Mairei*, 399; *mekongensis*, 392; *mollifolia*, 367; *mollifolia* var. *glabrata*, 369; *mollis*, 367, var. *glabrata*, 369; *monopetala*, 387; *moupinensis*, 370; *multiumbellata*, 373, f. *annamensis*, 373; *myricopsis*, 399; *ovata*, 399, 405; *Panamona*, 380; *Pierrei*, 382, var. *grandifolia*, 382, var. *lobata*, 382; *Pierrei* var. *szemaois*, 377; *Playfairii*, 400; *polyantha*, 387, 397, f. *glabra*, 398; *populifolia*, 367; *pseudodelonata*, 384; *pulchella*, 400, 427; *pungens*, 371; *Rehderiana*, 381; *rotundifolia*, 385, 414, var. *oblongifolia*, 386, 414; *rubescens*, 372, var. *ton-* *kinensis*, 373, var. *yunnanensis*, 372; *salicifolia*, 397, f. *attenuata*, 397, f. *glabra*, 398; *Sebifera*, 384, var. *brachiphylla*, 385; *sericea*, 369; *shweliensis*, 400, 401; *Thorelii*, 384; *touyunensis*, 400; *umbellata*, 396; *umbrosa*, 400, 426; *undulatifolia*, 400, 417; *Vang*, 382, var. *grandifolia*, 382, var. *lobata*, 382; *variabilis*, 393, var. *oblonga*, 393; *variabilis* var. *tonkinensis*, 393; *Veitchiana*, 370; *verticillata*, 373, f. *annamensis*, 373, var. *brevipes*, 374, var. *brevipetiolata*, 374; *viridis*, 391, var. *Clemensii*, 391; *wenshanensis*, 375; *Wilsonii*, 388; *wushanica*, 400, 419; *seyanica*, 400, 427, var. *chinensis*, 400, 427

Little America, 467

Lobelia amplissima, 731; *herbaceae*, 731; *linita*, 731; *oregana*, 731

Lomatia, 225, 226

Lomatium, A revision of the genus, 225

Lomatium, 228; *alatum*, 253, 287, var. *purpureum*, 254; *alpinum*, 279; *ambiguum*, 246; *ambiguum* var. *leptocarpum*, 246; *angustatum*, 268, var. *flavum*, 269; *anomalum*, 285; *argense*, 263; *artemisiarum*, 264; *athamantoides*, 259; *Austinae*, 257; *bicolor*, 246; *Brandegei*, 290; *brevifolium*, 250; *Canbyi*, 244; *caruifolium*, 252, var. *denticulatum*, 253, var. *marginatum*, 253, var. *purpureum*, 254; *caruifolium* var. *erythropodium*, 252, var. *solanense*, 252; *Chandleri*, 250; *ciliolatum*, 276; *circumdata*, 249; *concinnum*, 276; *Congdoni*, 266; *Cous*, 247; *Cusickii*, 287; *dasycarpum*, 262; *dasycarpum* var. *decorum*, 262, var. *medium*, 262; *daucifolium*, 225, 260; *Donnellii*, 271; *Eastwoodiae*, 275; *ellipticum*, 265; *Engelmannii*, 268; *farinosum*, 242; *flavum*, 264; *foeniculaceum*, 225, 259; *Geyeri*, 243; *giganteum*, 285; *Gormani*, 240, f. *purpureum*, 241; *Grayi*, 270, var. *depauperatum*, 270; *Greenmanii*, 274; *Hallii*, 279; *Hendersonii*, 244; *Howellii*, 237; *insulare*, 239; *Jonesii*, 258; *juniperinum*, 259; *laevigatum*, 288; *lepidosum*, 292; *latilobum*, 281; *Leibergii*, 279; *Lemmoni*, 293; *leptocarpum*, 245; *lucidum*, 235; *lucidum* var. *repostum*, 237; *MacDougalii*, 258; *macrocarpum*, 264, var. *ellipticum*, 265; *macrocarpum* var. *artemisiarum*, 264, var. *Douglasii*, 264, var. *semivirgatum*, 264; *marginatum*, 253, var. *purpureum*, 254; *Martindalei*, 280, var.

angustatum, 268; *megarrhizum*, 282; *microcarpum*, 279; *millefolium*, 270; *minimum*, 273; *mohavense*, 263; *montanum*, 248; *Nelsonianum*, 272; *nevadense*, 254, var. *Parishii*, 255, var. *pseudorientalis*, 255; *nevadense* var. *cupulatum*, 254, var. *holopterum*, 255; *nudicaule*, 290; *nudicaule* var. *puberulum*, 285; *Nuttallii*, 278, var. *alpinum*, 279; *oreganum*, 273; *orientale*, 225, 261; *oregenoides*, 242; *Parishii*, 255; *Parryi*, 277; *parvifolium*, 238, var. *pallidum*, 239; *Piperi*, 241; *platycarpum*, 283; *platyphyllum*, 291; *Plummerae*, 256, var. *Austiniae*, 257, var. *Helleri*, 257, var. *Sonnei*, 257; *pubescens*, 259; *purpureum*, 248; *repostum*, 237; *rigidum*, 239; *robustus*, 286; *Sandbergii*, 266; *scabrum*, 275; *semisepulcum*, 258; *serpentinum*, 271; *simplex*, 282, var. *leptophyllum*, 283; *Sonnei*, 257; *Suksdorffii*, 289, var. *Thompsonii*, 289; *tomentosum*, 263; *Torreyi*, 267; *ternatum*, 284, var. *alatum*, 287, var. *anomalum*, 285, var. *brevifolium*, 286, var. *macrocarpum*, 286; *utriculatum*, 250, var. *papillatum*, 251; *utriculatum* var. *anthemifolium*, 250, var. *glabrum*, 250; *vaginatum*, 249; *Vaseyi*, 251; *villosum*, 225, 259; *Watsoni*, 245

Ludwigia alternifolia var. *gulosa*, 772

Lyngbya, 751

M

Machilus hainanensis, 404; *pilosa*, 404; *Thunbergii*, 399

Magnolia, *guatemalensis*, 829; *poasana*, 829; *sororum*, 828; *Yoroconte*, 829

Magnoliaceae, Panamanian, 828

Malapoensis Sieboldii, 421

Marathrum Allenii, 827; *foeniculaceum*, 828; *Schiedeanum*, 828

Marie Byrd Land: discovery and exploration of, 467; flora of, 468, 486, 497, 501, 719; geology of, 468, 472; history of, 467; lichens and lichen parasites collected in, 515; light in, 477; map of, 475; moisture in, 484; Queen Maud Geological Party in, 471, mosses collected by, 719; rocks in, 486, 490; temperatures in, 478; wind in, 482; summary of plant life of, 497; zoological observations in, 470

Mathias, Mildred E. A revision of the genus *Lomatium*, 225

Maxon, W. R., Panamanian Polypodiaceae determined by, 824

Meristotheca, 299

Merorinus, 655

Microchaete trichopus, 820

Microspores of *Tradescantia*, Optical and chemical studies on the granules in, 455

Missouri: Additions, corrections, and revisions to the Annotated Catalogue of the Flowering Plants of, 775; New varieties and forms from, 769

Moisture in the Antarctic, 484

Monograph of the genus *Hemimeria*, A, 435

Mosses: in Marie Byrd Land, 467, 500; of the second Byrd Antarctic Expedition, 719

Mt. Corey, geology and plant life of, 494, 514

Mt. Donald Woodward, geology and plant life of, 487, 508, 512, 514

Mt. Grace McKinley, geology and plant life of, 476, 491, 506, 508

Mt. Helen Washington, geology and biology of, 481, 486, 490, 501, 504, 506

Mt. Raymond Fosdick, plant life of, 494

Mt. Rea-Cooper, geology and plant life of, 492, 506, 508, 510, 512, 514

Mt. Stancliff, geology and plant life of, 489, 510

Mountains in Marie Byrd Land: granitic, 490; metamorphic sediments and associated dike rocks, 486

Munzia, 100, 104

Musenium tenuifolium, 282

Myrica adenophora, 399; *esculenta*, 399

Myrioblastus, 554

Myrsinaceae, Panamanian, determined by P. C. Standley, 832

Myxophyceae, 520, 751

N

Neea acuminatissima, 823

Neolitsea, 415; *alongensis*, 424; *aurata*, 398, 422, var. *glabrescens*, 422; *camodiiana*, 418, var. *glabra*, 418; *chinensis*, 422; *Chuui*, 429, f. *annamensis*, 430; *confertifolia*, 399, 414, 416; *elaeocarpa*, 421; *elliptoidea*, 428; *ferruginea*, 418; *glauca*, 421; *gracilipes*, 419; *homilantha*, 419; *hongkongensis*, 414, 418; *Howii*, 424; *kwangsiensis*, 423; *lanuginosa chinensis*, 422; *Levinei*, 423; *Merrilliana*, 425; *oblongifolia*, 417; *obtusifolia*, 420; *phanerophlebia*, 430, f. *glabra*, 430; *Playfairii*, 400, 431; *Poilanei*,

425; *polycarpa*, 429; *puschella*, 400, 427; *Sieboldii*, 399, 421; *subcaudata*, 431; *subfoveolata*, 429; *umbrosa*, 399, 400, 426; *undulatifolia*, 400, 417; *wushanica*, 399, 400, 419; *zeylanica*, 400, 427, var. *Fangii*, 428; *zeylanica* var. *obovata*, 425

Neuropogon, 601; *melaxanthum*, 602; *Taylori*, 602

New varieties and forms from Missouri, 769

Nostoc, 739, 740, 741, 742, 744, 751

Nyctaginaceae, Panamanian, determined by P. C. Standley, 828

O

Omphalodium quantum, 561

Optical and chemical studies on the granules in microspores of *Tradescantia*, 455

Orchidaceae, Panamanian, determined by Charles Schweinfurth, 825

Organ Pipe Mountains, 514

Orobanchaceae, 835

Oxypolis sp., 292; *rigidior*, 292; *ternata*, 292

P

Paederota, 436, 442; *bonae spei*, 436, 437, 438, 443; *racemosa*, 446

Palicourea panamensis, 839

Palmer, Ernest J., and Julian A. Steyermark. New varieties and forms from Missouri, 769; Additions, corrections, and revisions to the "Annotated Catalogue of the Flowering Plants of Missouri," 775

Panama, Contributions toward a flora of, II. Miscellaneous collections during 1936-1938, 823

Pannariaeae, 736

Pannoparmelia, 586; *delicata*, 587, 714, 716; *pellucida*, 586, 714, 716

Parashelia (subsect.), 100, 112

Parmelia, 589; *Coreyi*, 595, 688; *griseola*, 596, 688; *leucoblephara*, 592; *quarta*, 561; *variolosa*, 593, 688; parasite of, 662

Parmeliaceae, 584

Passiflora salvadorensis, 830

Passifloraceae, Panamanian, determined by Ellsworth P. Killip, 830

Pastinacea ferulacea, 259; *foeniculacea*, 259; *nudicaulis*, 290

Peltigera *aphthosa*, 757; *cephalodia* of, 730

Peltigeraceae, 736

Penicillium sp., 522

Panteurya (subgen.), 300, 301, 345

Peperomia Alleni, 825; *cocleana*, 826
Pepsin, effect of, on microspore granules in *Tradescantia*, 459

Peucedanum, 225, 228; *abrotanifolium*, 247; *ambiguum*, 243, 246, var. *leptocarpum*, 246; *argense*, 263; *Austiniae*, 257; *bicolor*, 246, var. *gummonis*, 246; *Brandegei*, 290; *californicum*, 238, 252; *Canbyi*, 242; *carifolium*, 252; *cirroundatum*, 249; *confusum*, 240; *Cous*, 247; *Cusickii*, 287; *dasycarpum*, 262; *daucifolium*, 260; *Donnellii*, 271; *erosum*, 253; *eurycarpum*, 264; *Euryptera*, 235; *evittatum*, 243; *farnesum*, 242; *foeniculaceum*, 259, 260, 262, var. *daucifolium*, 259, 260; *Geyeri*, 243; *Gormani* 240; *graveolens*, 278, var. *alpinum*, 279; *Grayi*, 270, var. *aberrans*, 270; *Hallii*, 270, 279; *Hassei*, 235; *Hendersonii*, 244; *Howellii*, 237; *insulare*, 239; *Jaredi*, 262; *juniperinum*, 259; *Kingii*, 278, var. *alpinum*, 279; *laevigatum*, 288; *lapidosum*, 292; *latifolium*, 291; *leptocarpum*, 291, var. *campestre*, 291; *Lemmoni*, 292; *leptocarpum*, 245; *ludovicianum*, 292; *macrocarpum*, 264, 277, var. *eurycarpum*, 264; *marginatum*, 253; *Martindalei*, 280, var. *angustatum*, 268; *megarrhiza*, 282; *microcarpum*, 279; *millefolium*, 270; *mohavense*, 263; *montanum*, 248; *nevadense*, 254, var. *cupulatum*, 254; *Newberryi*, 292; *nudicaule*, 254, 261, 279, 291, var. *ellipticum*, 265, var. *puberulum*, 285; *Nuttallii*, 284, 291; *oreganum*, 273; *orientale*, 261; *Parishii*, 255; *Parryi*, 277; *parvifolium*, 238; *Plummerae*, 256; *Pringlei*, 262; *rigidius*, 292; *robustum*, 291; *salmoniflorum*, 292; *Sandbergii*, 266; *scopulorum*, 277; *simplex*, 283; *Suksdorffii*, 289; *tenuissimum*, 247; *ternatum*, 292; *tomentosum*, 263; *Torreyi*, 267; *triternatum*, 245, var. *alatum*, 287, var. *brevifolium*, 286, var. *leptocarpum*, 246, var. *leptophyllum*, 283, var. *macrocarpum*, 286, var. *platycarpum*, 282, var. *robustius*, 286; *utriculatum*, 250; *Vaseyi*, 251; *villosum*, 225, 259, 260; *Watsoni*, 240, 245

Phaliodictyum, 550

Phragmothele, 524; *papulare*, 524

Phylogenetic significance of the cephalodia of *Stereocaulon*, The taxonomic importance and, 729

Physcia, 660

Physcia, 589; *cirrhochroa*, 620

Physiaceae, 660
Pilophorion, 734, 736, 747
Piper Aleni, 826; *canyaxasense*, 826;
 san joseanum var. *chiriquinum*, 826;
tabasaranum, 827; *yaapeanum*, 827
 Piperaceae, Panamanian, determined by
 William Trelease, 825
Plaodium cirrochrooides, 626; *inordi-*
nata, 626; *Joannae*, 626; *lucens*, 627;
sublobulatum, 627; sect. *Thamnoma*,
 627
Pleolepis, 556
Pleurinis, 655
 Plumeria L.: evidences of hybridiza-
 tion in the genus, 217; and Himatan-
 thus Willd., An evaluation of the
 genera, 189
Plumeria, 189, 202; *acuminata*, 207;
acutifolia, 208, β *Gasparrini*, 208;
alba, 216; *alba* var. *fragrans*, 206,
 β *Jacquiniana*, 216; *ambigua*, 199,
 221; *angustiflora*, 197; *angustifolia*,
 221; *apiculata*, 213; *articulata*, 196,
 221, 222, 223; *attenuata*, 197, 221,
 β *obtusifolia*, 197, γ *Malongo*, 197;
barahonensis, 212; *beatae*, 213;
Berterii, 216; *bracteata*, 200, 222,
 223; *casildensis*, 214; *cayensis*, 213;
elusiooides, 212; *cochleata*, 206;
cubensis, 213; *cuneifolia*, 213; *cuspi-*
data, 222; *dictyophylla*, 213; *discolor*,
 220; *drasticu*, 196, 222; *Ekmanii*,
 213; *estrellensis*, 213; *fallax*, 196, 199,
 222; *filifolia*, 215; *floribunda*, 198,
 222; δ *acutifolia*, 199, γ *calycina*, 199,
 β *crassipes*, 199; *Hilariana*, 201, 222;
hypoleuca, 216, β *angustifolia*, 216;
incarnata β *Milleri*, 208; *inodora*,
 206, 832; *Jaegeri*, 216; *Lambertiana*,
 208; *lancifolia*, 200, 222, β *major*,
 199, 200, γ *microphylla*, 199; *leuco-*
neura, 214; *longiflora*, 220; *loranthi-*
folia, 208; *Malongo*, 197; *Martii*,
 199, 223; *megaphylla*, 208; *micro-*
calyx, 196, 223; *Milleri*, 208; *mollis*,
 208; *multiflora*, 215; *obovata*, 201,
 223, 224; *obtusa*, 212, 218, var. *serici-*
folia, 214, var. *typica*, 212; *oligo-*
neura, 201, 223; *Ostenfeldii*, 213;
phagedaenica, 199, 221, 222, 223;
pilosula, 214; *puberula*, 201, 222, 223,
 224; *pudica*, 206; *revoluta*, 200, 223;
rubra, 202, 207, 218, f. *acutifolia*,
 211, f. *lutea*, 211, f. *tricolor*, 211,
 f. *typica*, 211; *rubra* \times *subsessilis*,
 220; *sericeifolia*, 214; *speciosa*, 199,
 223; *stenopetala* var. *angustissima*,
 220; *stenophylla*, 215; *subsessilis*,
 216, 217; *Sucuuba*, 198, 222, 223;
tarapotensis, 198, 223; *Tenorii*, 212;
trouinensis, 220; *tuberculata*, 214;
velutina, 201, 223; *Warmingii*, 201,
 224
Plumiera, 202; *alba* var. *fragrantissima*,
 206, var. *inodora*, 206; *arborescens*,
 208; *caracasana*, 206; *confusa*, 212;
inaguensis, 212; *jamaicensis*, 212;
Kerrii, 208; *lanata*, 214; *latifolia*,
 222; *montana*, 213; *nipensis*, 212;
trinitensis, 214
Plumeria, 203; *bahamensis*, 212; *bi-*
color, 207; *biglandulosa*, 220; *cari-*
nata, 207; *clusioides*, var. *parviflora*,
 212; *domingensis*, 214; *emarginata*,
 212, β *sericeifolia*, 214; *gibbosa*, 214;
incarnata, 207; *Jamesoni*, 208;
Krugi, 212; *latifolia*, 201; *lutea*,
 208; *Marchii*, 212; *mexicana*, 208;
obtusa γ *laevis*, 212, β *parviflora*,
 212; *Paulinae*, 220; *portoricensis*,
 212; *purpurea*, 207; *sericeifolia*, 214;
tricolor, 207; *venosa*, 212
 Podostemaceae, Panamanian, 827
Poinsettia (sect.), 70
Poinsettia, 2, 70; *cyathophora*, 72; *Ed-*
wardsii, 70; *heterophylla*, 70
Polycauliona, 627; *pulvinata*, 628, 696,
 718; *regalis*, 627; *sparsa*, 629, 696
 Polypodiaceae, Panamanian, determined
 by William R. Maxon, 824
Proteaceae, 299, 300, 306
Protoblastenia, 605; *alba*, 607, 692;
aurea, 608, 692; *citrinigrigrens*, 610,
 692; *flava*, 605, 692
 Proteins, tests for, in microspore gran-
 ules of *Tradescantia*, 458
Pseudocymopterus humboldtensis, 292;
montanus, 292
Pseudoeurya crenatifolia, 332
Pycnosphae (subsect.), 107
Pycnosphae (sect.), 107
Pycnosphae, 107; *Columbariae*, 107
Pyrenocarpeae, 736
Pyrenodeamia, 619; *athallina*, 621; *au-*
rantia, 622; *cinericola*, 622; *Dar-*
bishirei, 620, 712, 714

Q

Queen Maud Mountains, geology and
 plant life of, 467, 495, 514; lichens of,
 515; temperature of, 480
Quercus falcata f. *angustior*, 771

R

Ramona, 98; *capitata*, 123; *Clevelandii*,
 119; *Dorrii*, 133; *grandiflora*, 110;
humilis, 136; *incana*, 130; *nivea*, 121;
pachystachya, 125; *Palmeri*, 146;

pilosa, 133; *polystachya*, 140; *stachyoides*, 113; *Vaseyi*, 138

Rapanea aurea, 311

Ravnia triflora, 838

Raymond Fosdick Mts., geology and plant life of, 494

Rehmopsis, 551

Revisions, Additions, corrections, and, to the "Annotated Catalogue of the Flowering Plants of Missouri," 775

Revision of the genus Lomatium, A, 225

Revision of the Hawaiian species of *Euphorbia* L., 1

Rhizocarpon, 550; *flavum*, 552, 674, 676, 718

Rinodina, 655, 712; *olivaceobrunnea*, 659, 710; *sordida*, 657, 710

Rocks in Marie Byrd Land: granitic, 473, 490; metamorphic sedimentary, 486

Rubiaceae, Panamanian, determined by P. C. Standley, 836

S

Salix cordata f. *mollis*, 770, f. *subintegra*, 770; *sericea* f. *glabra*, 769

Salvia, 95; *apiana*, 140, 186, 188; *apiana* var. *compacta*, 141, var. *typica*, 140; *apiana* × *Clevelandii*, 146; *apiana* × *eremostachya*, 148; *apiana* × *leucophylla*, 147; *apiana* × *mellifera*, 146; *apiana* *Munzii*, 148; *apiana* × *pachyphyllea*, 147; *apiana* × *Vaseyi*, 148; *bernardina*, 145, 149; *Brandegei*, 117, 168; *californica*, 104, 154; *californica*, 140; *carduacea*, 101, 158; *carnosa*, 128, subsp. *argentea*, 131, subsp. *Gilmansi*, 132, subsp. *Mearnsii*, 131, subsp. *pilosa*, 133, 178, subsp. *typica*, 130; *carnosa* var. *compacta*, 125, var. *pilosa*, 133, var. *typica*, 130; *Clevelandii*, 119, 170; *Clevelandii* × *leucophylla*, 150; *Columbariae*, 107, 145, 160; *Columbariae* × *mellifera*, 145, 149; *Columbariae* var. *bernardina*, 149; *compacta*, 125; *eremostachya*, 134, 180; *eremostachya* × *Vaseyi*, 150; *funerea*, 105, 156; *funerea* var. *fornacis*, 105; *gossypina*, 101; *Greatae*, 106, 158; *leucophylla*, 121, 172; *leucophylla* × *mellifera*, 149; *mellifera*, 112, 145, 164; *mellifera* var. *Jonesii*, 152, var. *revoluta*, 117, var. *typica*, 113; *mohavensis*, 123, 174; *Munzii*, 115, 166; *pachyphyllea*, 125, 176; *Palmeri*, 146; *pilosa*, 133; *sonomensis*, 136, 182; *spathacea*, 109, 162; *Vaseyi*, 138, 184

Salvias, The Californian. A review of *Salvia*, section *Audibertia*, 95

Sambucus canadensis f. *rubra*, 773

Sarcogyne, 556; *angulosa*, 556, 680; *grisea*, 558, 680

Sarconeurum antarcticum, 719; *glaciale*, 719

Sassafras Tzumu, 399

Saunders Mts., 486; geology and plant life of, 493

Schmitt, Francis O. and G. T. Johnson. Optical and chemical studies on the granules in microspores of *Tradescantia*, 455

Schweinfurth, Charles, Panamanian Orchidaceae determined by, 825

Scoparia dulcis, 436

Scopulariopsis brevicaulis, 522, 712

Seudder Mt., plant life of, 496, 512

Scytonema, 740, 742, 751

Sebifera glutinosa, 384

Second Byrd Antarctic Expedition—Botany, 467

Seibert, Russell J., R. E. Woodson Jr. and. Contributions toward a flora of Panama. II. Miscellaneous collections during 1936-1938, 823

Senecio, Studies of South American—II, 795

Senecio, 795; *aberrans*, 796, 806; *abietinus*, 796; *adenotrichus*, 796; *algens*, 796; *algens* var. *major*, 796, var. *minor*, 796; *Andrei*, 797; *apiculatus*, 797; *arboreus*, 798, 801; *arbutifolius*, 798; *argenteus*, 798; *Aschenbornianus* 798; *attenuatus*, 799; *baccardiflorus*, 799; *bahioides*, 799, a *lanosus*, 799, β *glaber*, 799; *bogotensis*, 799; *Bowmani*, 799; *brachycodon*, 800; *Brittonianus*, 800, 810; *canabinaceus*, 800; *chachapoyensis*, 801; *chaquiroensis*, 801; *coroicensis*, 806; *dictyophlebius*, 797, 801; *disciformis*, 805; *ellipticifolius*, 802; *ellipticus*, 803; *eristhalifolius*, 803; *erosus*, 816; *evacoides*, 803; *Georgianus*, 803; *grandifolius*, 804; *Greenmanianus*, 803; *Gürkei*, 804; *Hallii*, 803; *Hillii*, 804; *Hypsobates*, 805; *Klattii*, 805, 816; *Klugii*, 806; *laricifolius*, 807; *ledifolius*, 807; *tedifolius* β *Schlimii*, 807; *Lindenii*, 807; *Macbridei*, 808; *magellanicus*, 809; *Magnusii*, 809; *melanolepis*, 809; *Millei*, 809; *modestus*, 810; *modestus*, 822; *morrense*, 807; *myriocephalus*, 800; *nevadensis*, 810; *octophyllus*, 811; *olophyllus*, 811; *pachypus*, 811; *Pampae*, 812; *pellucidinervis*, 800, 813; *panasilis*,

813; *peregrinus*, 800; *pericaulis*, 814; *pichinchensis*, 814; *pimpinellaefolius*, 815; *polyphyllus*, 815; *praeruptorum*, 816; *pulchellus*, 816; *pulchellus* β ; *trichopus*, 820; *rhizomatus*, 816; *Richii*, 816, var. *latior*, 817; *Richii* var. β , 817; *roseus*, 805; *scaphiformis*, 817; *semidentatus*, 808; *Sepium*, 818; *sinuatilobus*, 818; *sotarense*, 818; *Sprucei*, 800; *stigophlebius*, 819; *subcandidus*, 819; *subdecurrens*, 819; *subglomerosus*, 819; *tephrosioides*, 819; *teretifolius*, 819; *theaefolius*, 801, 810; *tolimensis*, 820; *trichopus*, 820; *tristis* var. *Comberi*, 820; *Urbani*, 821; *vaccinoides*, 821, var. *pruinosa*, 821; *vernicosus* var. *microphyllus*, 807; *verticillatus*, 821, var. *trichophorus*, 822; *volubilis*, 801; *Werdermannii*, 822; *yungacensis*, 806; *yurensis*, 822

Seeceli binternatum, 284; *leiocarpum*, 291; *Nuttallii*, 278; *trinternatum*, 284

Sherff, Earl Edward. Revision of the Hawaiian species of *Euphorbia* L., 1

Siegertia, 550

Siple, Paul A. The second Byrd Antarctic Expedition—Botany. I. Ecology and geographical distribution, 467

Sirospiphon, 751

Skua Gull Peak, 481, 486, 488, 510, 512; geology and plant life of, 488

Skua gulls, 481, 488, 502, 522

Smyrnium nudicaule, 290

Snowy petrel on Mt. Helen Washington, 481, 486, 490, 504, 506

Solorina, 736; *crocea*, 736; *octospora*, 731

Solubility properties of microspore granules of *Tradescantia*, 459

South Victoria Land, 468; lichens of, 515

Sphaerophorus, 736

Standley, P. C. Panamanian plants determined by: *Begoniaceae*, 830; *Com-bretaceae*, 831; *Myrsinaceae*, 832; *Nyctaginaceae*, 828; *Rubiaceae*, 836; *Theaceae*, 829

Stemmadenia Donnell-Smithii, 833

Stereocaulon, The, the taxonomic importance and phylogenetic significance of the cephalodia of, 729; phylogenetic connections within the genus, 734, 735

Stereocaulon, 729; *albicans*, 746, 748; *alpinum*, 746, 748, 752; *arbuseula*, 746, 748; *botryophorum*, 732, 746, 748; *chlorocephaloides*, 746, 749; *condensatum*, 746, 747, 748; *congestum*, 746, 748; *corticatum*, 746, 748; *curtatum*, 746, 748; *denudatum*, 732, 746, 748, 751, 752; *exutum*, 739, 746, 748, 752; *fastigiatum*, 751; *foliosum*, 746, 748; *glareosum*, 746, 748; *graciliscescens*, 746, 748; *grande*, 751; *japonicum*, 739, 746, 748, 752; *lecanorum*, 746, 749; *macrocarpum*, 746, 749; *macrocephalum*, 746, 749; *Masartianum*, 753; *mixtum*, 746, 749, 752, 753; *nabewaziense*, 746, 748; *nanum*, 746, 748; *nesaeum*, 739, 746, 749, 752, 753; *nigrum*, 746, 748; *octomerium*, 746, 748; *paschale*, 732, 739, 741, 748, 751, 752; *pileatum*, 746, 747, 748; *pilophoroidea*, 746, 749; *piluliferum*, 746, 749; *prostratum*, 746, 748, 752; *proximum*, 746, 749, 752, 753; *pygmaeum*, 745; *ramulosum*, 732, 739, 746, 749, 751, 752, 753; *rivilorum*, 746, 748; *sinense*, 746, 749; *sordidiflrum*, 746, 749; *sphaerophoroidea*, 746, 748; *strictum*, 746, 749; *tomentosum*, 739, 741, 746, 748, 752; *uviliferum*, 746, 748; *Wrightii*, 746, 748

Stereopeltis, 556

Steyermark, Julian A., Ernest J. Palmer and. New varieties and forms from Missouri, 769; Additions, corrections, and revisions to the "Annotated Catalogue of the Flowering Plants of Missouri," 775

Stictaceae, 520, 736

Stigmomea, 740, 741, 742, 751

Strangospora, 554

Studies in the Apocynaceae. VII. An evaluation of the genera *Plumeria* L. and *Himatanthus* Willd., 189

Studies in the Lauraceae. I. Chinese and Indo-Chinese species of *Litsea*, *Neolitsea*, and *Actinodaphne*, 361

Studies in Theaceae. III. *Eurya* subgenera *Euryodes* and *Penteurya*, 299

Sunlight conditions in Marie Byrd Land, 477

Symplocos Hintoni, 354

Symplocos laurina, 254; *stellaris*, 398

T

Taxodium distichum f. *confusum*, 769

Taxonomic importance and phylogenetic significance of the cephalodia of *Stereocaulon*, The, 729

Temperatures: effect of, on pollen granules of *Tradescantia*, 461; in the Antarctic, 478

Ternstroemia, 355; *albo-punctata*, 353; *bifaria*, 321

Ternstroemiopsis (subgenus), 299, 300, 301

Tetradenia aurata, 422; *brideliifolia*, 385; *consimilis*, 426; *glauca*, 421; *obovata*, 405; *umbrosa*, 426; *seylanica*, 427

Tetranthera amara, 396; *attenuata*, 397; *chartacea*, 378; *elongata*, 390; *feruginosa*, 396; *glauca attenuata*, 397; *itodaphne*, 391; *lanceolifolia*, 395; *lancifolia*, 395; *macrophylla*, 387; *monopetala*, 387; *obovata*, 405; *Panamania*, 381; *Panamona*, 381; *pilosa*, 404; *polyantha*, 387; *rotundifolia*, 385; *salicifolia*, 397; *sericea*, 369; *umbrosa*, 426

Theaceae, Studies in. III. *Eurya* subgenera *Euryodes* and *Penteurya*, 299; Panamanian, determined by P. C. Standley, 829

Thelidium, 524; *Caloplacea*, 525, 664; *inaequale*, 524, 664; *parvum*, 526, 712

Thorne Glacier, 496

Thysanothecium, 734

Tithymalus, 2, 73

Tithymalus (sect.), 73

Tortulaceae, 719

Tradescantia, Optical and chemical studies on the granules in microspores of, 455, 466

Tradescantia *paludosa*, microspores of, 456; photomicrographs of, 466

Trelease, William, Panamanian Piperaceae determined by, 825

Trypsin, effect of, on microspore granules of Tradescantia, 459

U

Umbilicaria, 559; *cerebriformis*, 562, 678, 714; *cristata*, 565, 678; *pateriformis*, 564, 676; *rugosa*, 561, 676, 714; *spongiosa*, 566, 678

Umbilicariaceae, 559

Urea, reaction of, on pollen granules of Tradescantia, 460

Usnea, 600; *antarctica*, 602, 690; *frigida*, 603, 690; sect. *Neuropogon*, 601; subgen. *Neuropogon*, 601; *sulphurea* f. *sphaelata*, 602

Urticaceae, 597

V

Veronica Africana, 436, 443

Verrucariaceae, 523

Vincetoxicum discolor, 833, 834

Volcano, plant life of, 494

W

Wind in the Antarticas, effect of, on plant life, 482, 502

Woodson, Robert E. Jr. Studies in the Apocynaceae. VII. An evaluation of the genera *Plumeria* L. and *Himatanthus* Willd., 189; and Russell J. Seibert. Contributions toward a flora of Panama. II. Miscellaneous collections during 1936-1938, 823

X

Xanthoria antarctica, 625; *Iochnea f. antarctica*, 625